



PATENT  
Docket No. 100.58449010

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): KVITRUD et al. ) Group Art Unit: 3732  
Serial No.: 10/643,771 ) Examiner: Unassigned  
Confirmation No.: 4116 )  
Filed: August 19, 2003 )  
For: DENTAL CROWN FORMS AND METHODS

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with C.F.R. §§ 1.97 *et. seq.*, the materials enclosed herewith are brought to the attention of the Examiner as possibly being of interest in connection with the above-identified patent application. Per M.P.E.P. § 609, the information cited in the present Information Disclosure Statement shall not be construed to be an admission that the information is, or is considered to be, material to patentability. Consideration of each of the documents listed on the attached 1449 forms is respectfully requested. **As this patent application was filed after June 30, 2003, copies of the U.S. patents and U.S. patent application publications listed on the attached 1449 forms have not been submitted.** Pursuant to the provisions of M.P.E.P. §609, Applicants further request that a copy of the 1449 forms, marked as being considered and initialed by the Examiner, be returned with the next Official Communication.

Applicants also wish to bring the Examiner's attention to the following pending U.S. Applications, as well as any documents, Office Actions that may include rejections of similar claims, and any provisional U.S. patent applications referenced therein. A copy of each of the below-listed pending U.S. Patent Applications is provided herewith.

**Information Disclosure Statement****2 of 2**

Serial No. 10/643,771

Confirmation No. 4116

Filed: August 19, 2003

**DENTAL CROWN FORMS AND METHODS****List of Pending Non-Published U.S. Patent Applications**

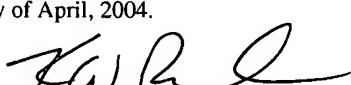
Applicant(s)	Application Number	Filing Date	Serial No. of Provisional Application to which listed Application claims priority
Karim	09/541,417	04/03/00	
Karim et al.	10/613,722	07/03/03	
	10/643,749	08/19/03	
Oxman et al.	10/643,748	08/19/03	

It is believed that no fee is due, as this Information Disclosure Statement is filed prior to the receipt of any Action on the merits. However, in the event a fee is due, please charge any fee or credit any overpayment to Account No. 13-4895.

The Examiner is invited to contact Applicants' Representatives at the below-listed telephone number, if they can be of any assistance during prosecution of the present application.

**CERTIFICATE UNDER 37 C.F.R. 1.8:**

The undersigned hereby certifies that this paper is being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 13th day of April, 2004.

Signature:   
Name: KEVIN W. RAASCH

Respectfully submitted for

KVITRUD et al.

By

Mueting, Raasch & Gebhardt, P.A.  
P.O. Box 581415  
Minneapolis, MN 55458-1415  
Phone: (612)305-1220  
Facsimile: (612)305-1228

13 APRIL 2004

Date

KWR/rgg

By:   
Kevin W. Raasch  
Reg. No. 35,651  
Direct Dial (612)305-1218

<b>INFORMATION DISCLOSURE STATEMENT</b>  <small>EXAMINER &amp; TRADEMARK OFFICE</small>	Atty. Docket No.: 58449US002	Serial No.: 10/643,771
	Applicant(s): KVITRUD et al.	Confirmation No.: 4116
	Application Filing Date: 19 August 2003	Group: 3732
	Information Disclosure Statement mailed: <u>April 13, 2004</u>	

## U.S. PATENT DOCUMENTS

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		Des. 403,768	01/05/99	Mark et al.			
		4,071,424	01/31/78	Dart et al.			
		4,129,946	12/19/78	Kennedy			
		4,347,888	09/07/82	Butler			
		4,503,169	03/05/85	Randklev			
		4,507,466	03/26/85	Tomalia et al.			
		4,514,174	04/30/85	Dougherty et al.			
		4,558,120	12/10/85	Tomalia et al.			
		4,568,737	02/04/86	Tomalia et al.			
		4,571,188	02/18/86	Hamilton			
		4,587,329	05/06/86	Tomalia et al.			
		4,631,337	12/23/86	Tomalia et al.			
		4,642,126	02/10/87	Zador et al.			
		4,648,843	03/10/87	Mitra			
		4,652,274	03/24/87	Boettcher et al.			
		4,694,064	09/15/87	Tomalia et al.			
		4,695,251	09/22/87	Randklev			
		4,713,975	12/22/87	Tomalia et al.			
		4,737,550	04/12/88	Tomalia			
		4,772,530	09/20/88	Gottschalk et al.			
		4,778,386	10/18/88	Spiry			
		4,857,599	08/15/89	Tomalia et al.			
		4,871,779	10/03/89	Killat et al.			

EXAMINER	Date Considered
----------	-----------------

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE STATEMENT</b>	Atty. Docket No.: 58449US002	Serial No.: 10/643,771
	Applicant(s): KVITRUD et al.	Confirmation No.: 4116
	Application Filing Date: 19 August 2003	Group: 3732
	Information Disclosure Statement mailed: <u>April 13, 2004</u>	

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		4,874,450	10/17/89	Gottschalk			
		4,954,414	09/04/90	Adair et al.			
		5,055,372	10/08/91	Shanklin et al.			
		5,057,393	10/15/91	Shanklin et al.			
		5,135,545	08/04/92	Pyzik et al.			
		5,401,169	03/28/95	Fleisher et al.			
		5,403,188	04/04/95	Oxman et al			
		5,418,301	05/23/95	Hult et al.			
		5,487,663	01/30/96	Wilson			
		5,545,676	08/13/96	Palazzotto et al.			
		5,538,129	07/23/96	Chester et al.			
		5,552,177	09/03/96	Jacobs et al.			
		5,635,545	06/03/97	Oxman et al.			
		5,636,736	06/10/97	Jacobs et al.			
		5,707,236	01/13/98	Swanson et al.			
		5,753,781	05/19/98	Oxman et al.			
		5,775,913	07/07/98	Updyke et al.			
		5,785,178	07/28/98	Kvitrud et al.			
		5,827,063	10/27/98	Greenstein			
		5,830,986	11/03/98	Merrill et al.			
		5,859,148	01/12/99	Borggreve et al.			
		5,876,209	03/02/99	Letcher			
		5,914,185	06/22/99	Shoher et al.			
		5,919,870	07/06/99	Letchford et al.			

<b>EXAMINER</b>	<b>Date Considered</b>
-----------------	------------------------

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE STATEMENT</b>	<b>Atty. Docket No.:</b> 58449US002	<b>Serial No.:</b> 10/643,771
	<b>Applicant(s):</b> KVITRUD et al.	<b>Confirmation No.:</b> 4116
	<b>Application Filing Date:</b> 19 August 2003	<b>Group:</b> 3732
	Information Disclosure Statement mailed:	April 13, 2004

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		5,951,294	09/14/99	Pierson			
		5,975,906	11/02/99	Knutson			
		5,996,796	12/07/99	Kvitrud et al.			
		6,057,383	05/02/00	Völkel et al.			
		6,084,004	07/04/00	Weinmann et al.			
		6,114,409	09/05/00	Krebber			
		6,121,344	09/19/00	Angeletakis et al.			
		6,126,922	10/03/00	Rozzi et al			
		6,127,450	10/03/00	Angeletakis			
		6,186,790 B1	02/13/01	Karmaker et al.			
		6,187,836 B1	02/13/01	Oxman et al.			
		6,196,840 B1	03/06/01	Zentz et al.			
		6,252,014 B1	06/26/01	Knauss			
		6,300,390 B1	10/09/01	Angeletakis			
		6,345,984 B2	02/12/02	Karmaker et al.			
		6,353,040 B1	03/05/02	Subelka et al.			
		6,359,090 B1	03/19/02	Angeletakis			
		6,382,980 B1	05/07/02	Shoher et al.			
		6,384,106 B1	05/07/02	Angeletakis			
		6,395,803 B1	05/28/02	Angeletakis			
		6,448,301 B1	09/10/02	Gaddam et al.			
		6,506,816 B1	01/14/03	Ario et al.			
		6,624,211 B2	09/23/03	Karim et al.			
		6,635,690 B2	10/21/03	Heilmann et al.			

<b>EXAMINER</b>	<b>Date Considered</b>
-----------------	------------------------

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE STATEMENT</b>	Atty. Docket No.: 58449US002	Serial No.: 10/643,771
	Applicant(s): KVITRUD et al.	Confirmation No.: 4116
	Application Filing Date: 19 August 2003	Group: 3732
	Information Disclosure Statement mailed: <u>April 13, 2004</u>	

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		2002/0061493 A1	05/23/02	Sun et al.			
		2002/0086266 A1	07/04/02	Karmaker et al.			
		2002/0102519 A1	08/01/02	Baum et al.			
		2002/0115743 A1	08/22/02	Karim et al.			
		2002/0117393 A1	08/29/02	Sun et al.			
		2003/0096908 A1	05/22/03	Heilmann et al.			
		2003/0114553 A1	06/19/03	Karim et al.			
		2003/0134930 A1	07/17/03	Gaddam et al.			
		2004/0005524 A1	01/08/04	Oxman et al.			

**FOREIGN PATENT DOCUMENTS**

Examiner Initial	Copy Enclosed	Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	✓	DE 2751057 A1	06/24/81	Germany (English Language Abstract Included)				X
	✓	DE 299 21 182 U1	05/18/00	Germany (English Language Abstract Included)				X
	✓	DE 199 24 116 A1	01/25/01	Germany (English Language Abstract Included)				X
	✓	EP 0 173 567 A2	03/05/86	EPO				
	✓	EP 0 284 991 A2, A3	10/05/88	EPO				
	✓	EP 0 284 991 B1	08/26/92	EPO				
	✓	EP 0 970 680 A2, A3	01/12/00	EPO				
	✓	EP 1 138 272 A1	10/04/01	EPO				

<b>EXAMINER</b>	<b>Date Considered</b>
-----------------	------------------------

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE STATEMENT</b>	Atty. Docket No.: 58449US002	Serial No.: 10/643,771
	Applicant(s): KVITRUD et al.	Confirmation No.: 4116
	Application Filing Date: 19 August 2003	Group: 3732
	Information Disclosure Statement mailed: <u>April 13, 2004</u>	

	<input checked="" type="checkbox"/>	GB 1 591 741	06/24/81	Great Britain				
	<input checked="" type="checkbox"/>	JP 4-183737	06/30/92	Japan (English Language Abstract Included)				X
	<input checked="" type="checkbox"/>	WO 98/35630 A2, A3	08/20/98	WIPO				
	<input checked="" type="checkbox"/>	WO 98/36729 A2	08/27/98	WIPO				
	<input checked="" type="checkbox"/>	WO 99/45890 A1	09/16/99	WIPO				
	<input checked="" type="checkbox"/>	WO 01/12679 A1	02/22/01	WIPO (English Language Abstract Included)				X
	<input checked="" type="checkbox"/>	WO 01/95862 A1	12/20/01	WIPO				
	<input checked="" type="checkbox"/>	WO 02/36039 A1	05/10/02	WIPO				
	<input checked="" type="checkbox"/>	WO 02/085313 A1	10/31/02	WIPO				
	<input checked="" type="checkbox"/>	WO 02/092021 A1	11/21/02	WIPO (English Language Abstract Included)				X
	<input checked="" type="checkbox"/>	WO 02/26197 A2, A3	04/04/02	WIPO				
	<input checked="" type="checkbox"/>	WO 03/015720 A1	02/27/03	WIPO				

**OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)**

Examiner Initial	Copy Enclosed	Document Description
	<input checked="" type="checkbox"/>	ANSI/ADA, American National Standard/American Dental Association, Specification No. 27; "Resin-Based Filling Material;" Council on Dental Materials, Instruments and Equipment, American Dental Association; Chicago, IL; 36 pgs. total (July 16, 1993).
	<input checked="" type="checkbox"/>	Fedor, "A Method for Estimating Both the Solubility Parameters and Molar Volumes of Liquids," <i>Polymer Sci. and Eng.</i> , Vol. 14(2), pp. 147-154 (February 1974).

EXAMINER	Date Considered

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE STATEMENT</b>	<b>Atty. Docket No.:</b> 58449US002	<b>Serial No.:</b> 10/643,771
	<b>Applicant(s):</b> KVITRUD et al.	<b>Confirmation No.:</b> 4116
	<b>Application Filing Date:</b> 19 August 2003	<b>Group:</b> 3732
	Information Disclosure Statement mailed: <u>April 13, 2004</u>	

Examiner Initial	Copy Enclosed	Document Description
	✓	ISO 4049 International Standard; "Dentistry - Polymer-based filling, restorative and luting materials;" International Organization for Standardization, Geneva, Switzerland; Title page, Publication page, Table of Contents, and pgs. 1-27 (33 pgs. total) (July 15, 2000).
	✓	Klee et al., "Synthesis for low shrinking composites, 2 <sup>a</sup> Synthesis of branched methacrylates and their application in dental composites," <i>Macromol. Chem. Phys.</i> , Vol. 200, pp. 517-523 (1999).
	✓	Plate et al., "Comb-Like Polymers, Structure and Properties," <i>Journal of Polymer Science, Macromolecular Reviews</i> , Vol. 8, Title page, Publication and Table of Contents page, and pgs 117-253 (1974).
	✓	Product Directions for Use and Material Safety Data Sheet, "Triad ® Visible-Light Cure Provisional Material Directions for Use," Dentsply Trubyte, York, PA, 6 pgs. (June 1997)
	✓	Product Directions for Use, "SureFil™ High Density Posterior Restorative," Dentsply Caulk, Dentsply, International, Inc., Milford, DE, 5 pgs. (October, 1998).
	✓	Product Directions for Use, "REVOTEK LC Light-Cured Resin For Temporary Crown & Bridge," GG Dental Products Corp., Alslo, IL, 5 pgs. (November, 2000).
	✓	Product Instructions for Use, "Kerr Prodigy Condensable," Kerr U.S.A., Orange, CA, 1 pg. (no date available)
	✓	Revised American National Standard / American Dental Association (ADA); Specification No. 9 for Dental Silicate Cement; ADA, Chicago, IL; 17 pgs. (June 30, 1980).
	✓	Wan et al., "Methacrylol Derivitized Hyperbranched Polyester. 2. Photo-Polymerization and Properties for Dental Resin Systems," <i>J.M. S. - Pure Appl. Chem.</i> , Vol. A37(11), pp. 1317-1331 (2000).

EXAMINER	Date Considered
*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	